REMARKS

Entry of the foregoing, reexamination and reconsideration of the subject application are respectfully requested in light of the amendments above and the comments which follow.

As correctly noted in the Office Action Summary, claims 1-24 and 27-29 were pending. By the present response, claims 1 and 21 have been amended, and claims 30-39 have been added. Thus, upon entry of the present response, claims 1-24 and 27-39 are pending and await further consideration on the merits.

Support for the foregoing amendments can be found, for example, in at least the following locations in the original disclosure: paragraphs [0013], [0014], [0036] [0037], [0046]; Figure 1; and the original claims.

Entry of the forgoing is appropriate pursuant to 37 C.F.R. §1.116 for at least the following reasons. The amendments clearly overcome the grounds for rejection.

CLAIM REJECTIONS UNDER 35 U.S.C. §102

Claims 1-7, 9-21, 23 and 27-29 stand rejected under 35 U.S.C. §102(b) as being anticipated by EP 0 651 306 to Dellacorna et al. (hereafter "*Dellacorna et al.*") on the grounds set forth in paragraph 2 of the Official Action. For at least the reasons noted below, this rejection should be withdrawn.

The present invention is directed to an apparatus, method and balance for preparing solutions and/or dilutions. The apparatus, methods and balance of the present invention advantageously provides a high level of assurance of accuracy by performing computational steps as part of an executable program possessed thereby, thus preventing calculation errors. The present invention also

advantageously indicates whether or not the end product is plausible, based upon the weight of the completed solution/dilution, thereby adding an additional "quality check."

An apparatus constructed according to the principles of the present invention as set forth in claim 1. Claim 1 recites:

> *1. Apparatus for preparing a solution of a solid with a liquid and/or a dilution of a liquid with another liquid, comprising:*
> *a balance comprising a weighing pan, a display- and operating unit, a processor, a storage memory, and a data interface; and*
> *at least one electronic pipette, the pipette being equipped with a microprocessor, a memory unit, and a data interface, wherein a communication can be established between the data interface of the balance and the data interface of the at least one electronic pipette, wherein the electronic pipette has an identifier element that signals when the electronic pipette has been selected, and wherein the balance comprises a program executable for preparing a solution of a solid with a liquid and/or a dilution of a liquid in another liquid, said program being configured for performing calculations in the processor of the balance based on instructions input by an attendant, also based on substance data stored in the memory of the balance, said program being further configured for selecting an electronic pipette from an available selection and setting the electronic pipette for the liquid volume that is to be taken in and/or dispensed.*

A method performed according to the principles of the present invention is set forth in claim 10. Claim 10 recites:

> *10. Method for preparing a solution of a solid with a liquid and/or a dilution of a liquid with another liquid, wherein the method includes:*
> *connecting a balance comprising a display- and operating unit, a processor , a storage memory, and a data interface with at least one electronic pipette, the pipette being equipped with a microprocessor, a memory unit, a data interface, and an identifier element, wherein the balance and the at least one electronic pipette can*

communicate with each other through their respective data interfaces, and wherein the processor of the balance comprises a program that performs calculations based on instructions given by the attendant, also based on substance data stored in the memory of the balance;

wherein said program selects a pipette from an available selection, sets the pipette for the liquid volume that is to be taken in and/or dispensed; and

activates the identifier element of a selected electronic pipette.

According to yet another aspect, a balance constructed according to the principles of the present invention set forth in amended claim 21. Amended claim 21 recites:

21. A balance comprising a memory, the memory comprising a program, wherein the program is configured to perform a work procedure selected by an attendant for preparing a solution of a solid with a liquid and/or a dilution of a liquid with another liquid, wherein the program is configured to perform calculations based on instructions entered by the attendant, based on substance data stored in the memory of the balance, and wherein the program is configured to select a pipette from an available selection, set the pipette for the liquid volume that is to be taken in and/or dispensed, and wherein the program is configured to activate an identifier element of the selected pipette.

As evident from the above, claim 1 requires, *inter alia*, "at least one electronic pipette." Similarly, claim 10 requires, *inter alia*, "connecting a balance with at least one electronic pipette." Claim 21 requires a memory containing a program configured to "select a pipette from an available selection." *Dellacoma et al.* fails to disclose at least these aspects of the presently claimed invention.

Dellacoma et al. is described, for example, in paragraph [0008] of the present specification. As alluded to therein, *Dellacoma et al.* discloses an arrangement which includes a "metering means" (5). The grounds for rejection rest upon the assertion that the metering means (5) constitutes the recited pipette. This assertion

is respectfully traversed. As discussed in the previous response, the term "pipette" is a term of art. At a minimum, one of ordinary skill in the art would understand the term to mean the device which is constructed in a manner that aspirates a volume of fluid therein, and then is capable of dispensing it. This interpretation is consistent with the discussion of the pipette appearing in the present specification. See, e.g. paragraphs [00013], [00014], [00030] and [00046].

Dellacorna et al. fails to explicitly disclose any form of pipette element. It is asserted on page 5 of the Official Action that "a pipette as recited in the current claim may simply be comprised of a narrow tube that is used for transferring or delivering measured quantities." This assertion is respectfully traversed. This interpretation of the term "pipette" is inconsistent with the meaning of the term, as it would have been understood by those of ordinary skill in the art. Moreover, this interpretation of the claim term "pipette" is also in consistent with the discussion of this element contained in the above-noted portions of the present specification. Thus, while the Examiner should give the claim its broadest reasonable interpretation for purposes of examination, there are limits on the permissible construction of claim elements. Specifically, claim elements should be given their ordinary and customary meaning that the term would have to a person of ordinary skill in the art at the time of the invention. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313, 75 USPQ2d 1321, 1326 (Fed. Cir. 2005) (en Banc). In addition, the use of the words and the context of the written description of the application and its customary use by those ordinary skill in the relevant art accurately reflects both the ordinary and customary meaning of the term in the claims. *Ferguson Beauregard/Logic Controls v. Mega Systems*, 350 F.3d 1327, 1338, 69 USPQ 2d 1001, 1009 (Fed. Cir. 2003). The use of dictionaries as

aids for claim interpretation must always be compared against the use of the terms in the context of the written description, and the intrinsic record must be consulted to identify the most consistent interpretation that is consistent with its use by the Applicant. *Id.*

In light of the above-identified controlling legal principles, it is respectfully submitted that the above-quoted interpretation of the term "pipette" is erroneous. The metering means (5) is not constructed in a manner such that it can aspirate a volume of fluid, and dispense it. As clearly illustrated, for example, in Figure 1 therein, a pump (7) is connected to a liquid supply container (6) by a fluid line (7a). The metering means (5) is physically connected to the pump (7) by a second fluid line (5a) the metering means (5) is disposed at a location which is above the container (3) into which a liquid is dispensed. It is further submitted on pages 5-6 of the Official Action that:

> If the tube body (52) were placed into a liquid and then the pin (54) were raised, then suction would draw fluid into the lower portion of the tube body.

As evident from the above, the assertion that the metering means (5) can function as a pipette is based upon the assertion that the metering means (5) inherently satisfies the required "pipette" limitation of claims 1, 10 and 21. Since the grounds for rejection rests upon the principle of inherency, it is the Examiner burden to establish that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art. See, e.g., MPEP §2112. Applicants respectfully submit that the Examiner has failed to satisfy this burden. In particular, the arrangement depicted in Figure 1 of *Dellacorna et al.* is not constructed for moving the metering means into communication with a supply of fluid. As discussed above,

instead, the metering means is connected to a supply of liquid (6) via physically attached "hydraulic lines" (5a, 7a). Thus, it would appear to be physically impossible to move the metering means (5) into direct physical contact with the liquid to be dispensed therefrom, as alleged in the Official Action. Thus, it is respectfully submitted that the arrangement described by *Dellacorna et al.* is physically incapable of functioning in the manner suggested in the grounds for rejection.

Second, it is unclear that the simple act of raising the pin (54) of the metering means (5) of *Dellacorna et al.* would produce adequate suction to aspirate a particular volume of fluid within the metering means (5). In particular, it is noted that fluid is supplied into the chamber (55) of the metering means (5) of *Dellacorna et al.* via an inlet (56) thus, with fluid already being present within the (55) chamber, it is unclear how simply placing the end of the metering means into contact with a liquid and raising the pin (54) will act to draw in additional fluid from outside of the chamber (55).

For at least the reasons noted above, it is respectfully submitted that the metering means (5) of *Dellacorna et al.* fails to inherently satisfy the above-noted "pipette" limitations appearing in claim 1, 10 and 21. Thus, since *Dellacorna et al.* fails to disclose, either expressly or inherently, each and every element required by claims 1, 10 and 21, the rejection is improper and should be withdrawn.

Claim 1 additionally requires a balance equipped with a processor and a storage memory, as well as an electronic pipette equipped with its own microprocessor and memory unit. Similarly, claim 10 recites the step of connecting a balance comprising a processor and storage memory, with an electronic pipette equipped with its own microprocessor and memory unit. Thus, according to the

requirements of claims 1 and 10, both the balance and pipette each have their own associated microprocessor and memory (see, e.g. Figure 1 of the present application). By contrast, *Dellacorna et al.* fails to disclose such a configuration. There is no separate memory or microprocessor associated with the metering means (5) of *Dellacorna et al.* In fact, the grounds for rejection fail to even allege that this is the case. Thus, *Dellacorna et al.* fails to disclose at least this additional aspect of claims 1 and 10.

Claim 1 also requires that the electronic pipette has "an identifier element that signals when the electronic pipette has been selected." Similarly, claim 10 recites the step of connecting a balance with an electronic pipette having an identifier element, as well as the step of activating the identifier element of a selected electronic pipette. Claim 21 recites a balance having a program contained in the memory thereof which is configured to activate an identifier element of the selected pipette. *Dellacorna et al.* fails to disclose any such identifier element associated with the metering means (5). In fact, the grounds for rejection fail to even allege that this is the case. Thus, *Dellacorna et al.* fails to disclose at least this additional aspect of the presently claimed invention.

As evident from the above, claim 1 requires a balance comprising a program configured for selecting an electronic pipette from an available selection and setting the electronic pipette for the liquid volume that is to be taken in and/or dispensed. Similarly, claim 10 recites the step of connecting a balance to a pipette, the balance comprising a program that selects a pipette from an available selection, and sets the pipette for the liquid volume that is to be taken in and/or dispensed. Similarly, claim 21 recites a balance having a memory, the memory comprising a program

configured to select the pipette from an available selection, and set the pipette for the liquid volume that is to be taken in and/or dispensed. *Dellacorna et al.* fails to disclose at least these aspects of the presently claimed invention. The arrangement described by *Dellacorna et al.* does not include any selection of metering means (5) from which a program could even select. In addition, there is not indication given in the disclosure of *Dellacorna et al.* that the balance includes a program which is configured to select (i.e. exercise a choice from a number of options) with respect to selecting the metering means (5). In addition, *Dellacorna et al.* fails to disclose a processor which "sets" a volume for the metering means. This is because the metering means (5) of *Dellacorna et al.* is designed to operate in a fundamentally different manner than the electronic pipettes of the presently claimed invention. In particular, the control unit of *Dellacorna et al.* is configured to be operated by a user in a manner such that the control unit displays the amount of liquid dispensed, and queries the operator to manually discontinue dispensing the liquid. For at least the above noted reasons, *Dellacorna et al.* also fails to disclose, or even suggest, the above noted aspects of the program of the presently claimed invention. Thus, reconsideration and withdrawal of the rejection is respectfully requested.

The remaining claims depend either directly or indirectly upon claims 1, 10 or 21. Thus, these claims are also distinguishable over *Dellacorna et al.* for at least the same reasons noted above.

NEW CLAIMS

By the present response, claims 30-39 have been added. Claims 30-39 depend from claims 1, 10 or 21. Thus, these claims are also distinguishable over the

applied prior art for at least the same reasons noted above. In addition, claims 30 and 31 further specify that the pipette is constructed to aspirate liquid. Claims 32, 34 and 36 further specify that the selection of available pipettes comprises a plurality of electronic pipettes. Claims 33, 35 and 37 further specify that the selection of pipettes comprises pipettes with different volume capacities. Claims 38-39 further specify that the identifier element is constructed to produce at least one of an optical and audible signal when the electronic pipette is selected or activated. *Dellacorna et al.* also fails to disclose at least these aspects of newly added claims 30-39.

CLAIM REJECTIONS UNDER 35 U.S.C. §103

Claims 8, 22 and 24 stand rejected under 35 U.S.C. §103(a) as being unpatentable over *Dellacorna et al.* in view of WO 02/073142 and U.S. Patent No. 7,206,664 to Schmid (hereafter "*Schmid*") on the grounds set forth in paragraph 5 of the Official Action. For at least the reasons noted below, this rejection should be withdrawn.

Schmid is applied as set forth in paragraph 5 of the Official Action. In particular, it is asserted therein that *Schmid* teaches a system and method for mixing substances having a processor unit (3), memory unit (3) in communication with an external data server (30) through a communication module (7), and recording of data using a data base to compare results or update the system. However, even if the alleged teachings of *Schmid* were applied exactly as suggested in the grounds for rejection, the claimed invention would not result. Namely, the proposed modification to *Dellacorna et al.* fails to cure the deficiencies previously noted above in connection with the lack of certain features being described in the disclosure of

Dellacoma et al. that are recited in claims 1, 10 and 21. Thus, reconsideration and withdrawal of the rejection is respectfully requested.

CONCLUSION

From the foregoing, further and favorable action in the form of a Notice of Allowance is earnestly solicited. Should the Examiner feel that any issues remain, it is requested that the undersigned be contacted so that any such issues may be adequately addressed and prosecution of the instant application expedited.

Respectfully submitted,

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